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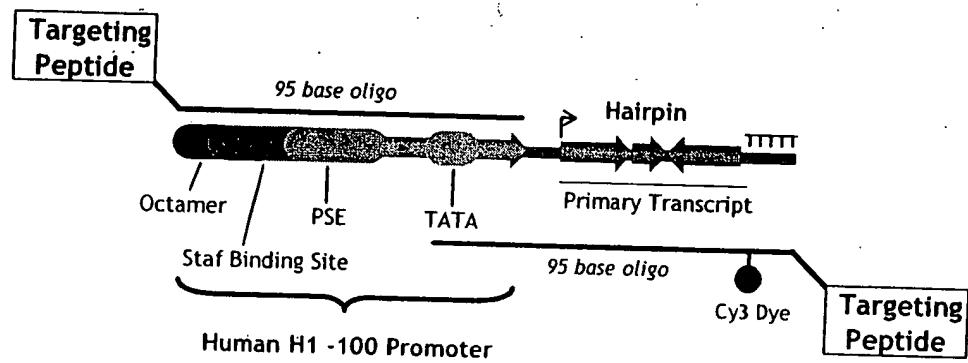


FIGURE 1

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## Silencing hairpin RNA against EGFP (Clontech humanized)

## FIGURE 2A

⊖

⊖

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Mature transcript, following processing by RNase III

*sense*

gcaagcugaccugaaguucuu  
||||| ||||| ||||| ||||| |||||

uucguucgcacugggacuucaag

*antisense*

FIGURE 2B

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aatattgcatgtcgctatgtgttctggaaa  
tcaccataaacgtgaaatgtctttggatttg  
gaatcttataagttctgtatgagaccacagat  
ccccgcaagctgaccctgaagttcttcaagag  
agaacttcagggtcagcttgcttttgg

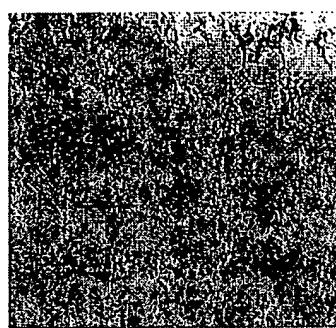
FIGURE 3

A

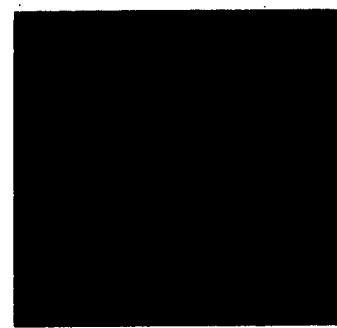
B

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A



B



C



D



FIGURE 4

⊖

⊖

6139

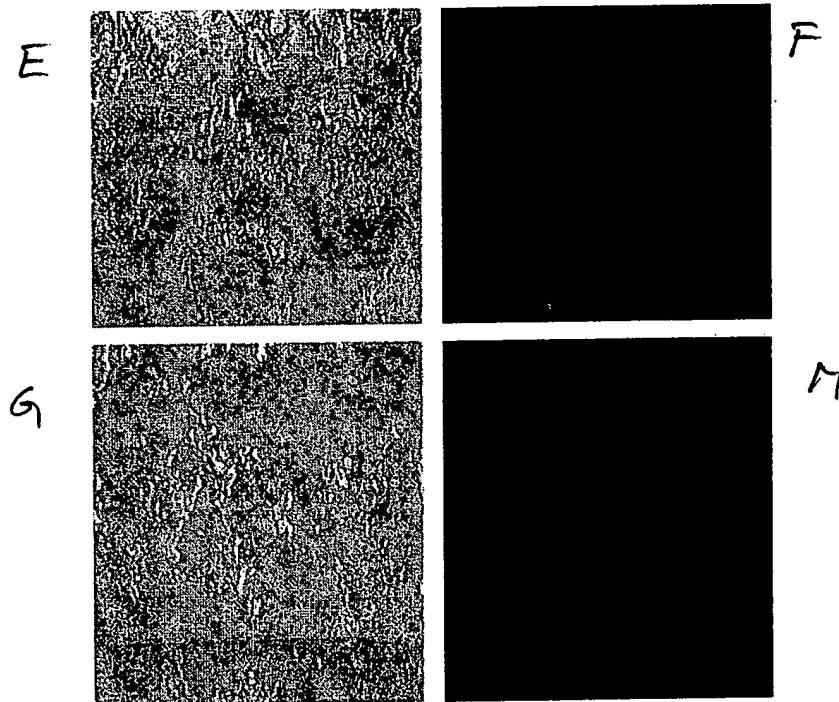


FIGURE 4 (CONT'D.)

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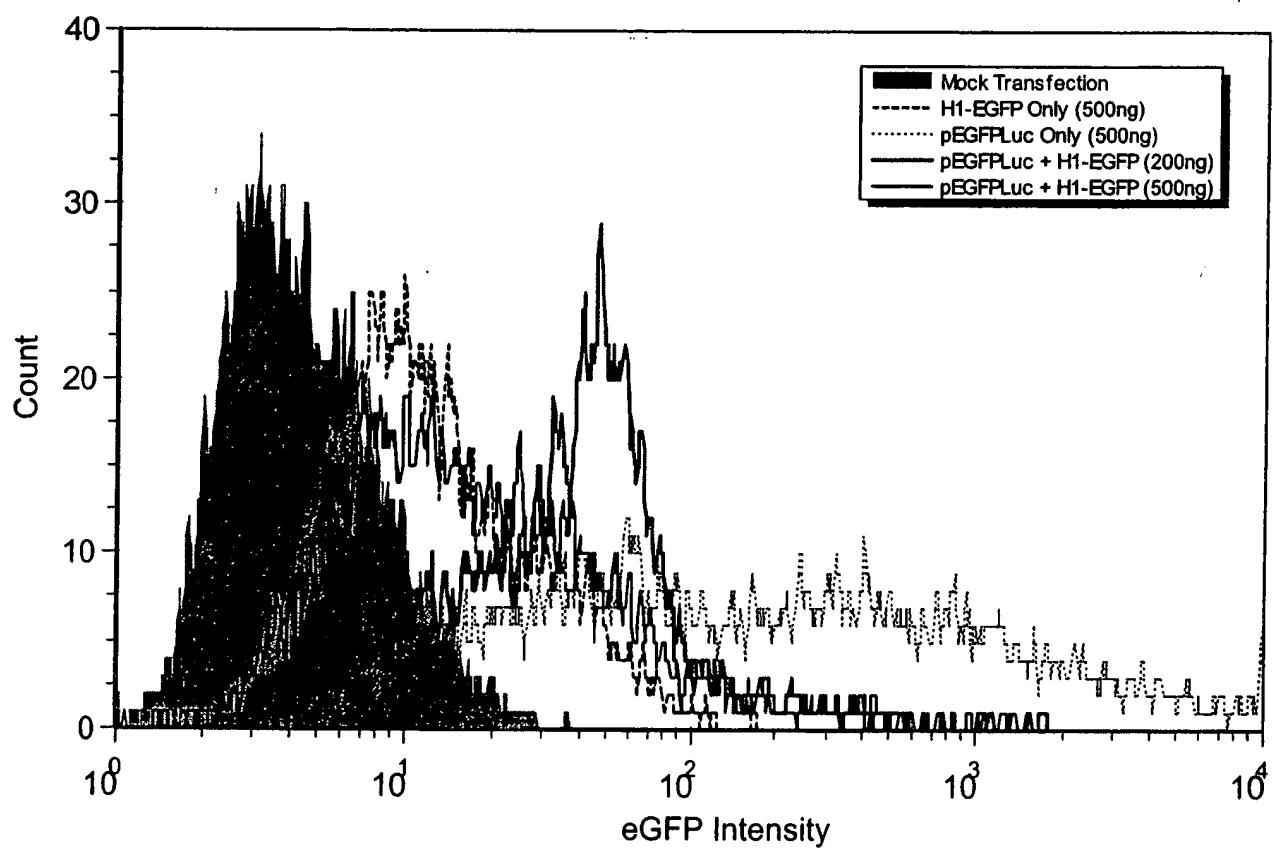


FIGURE 5

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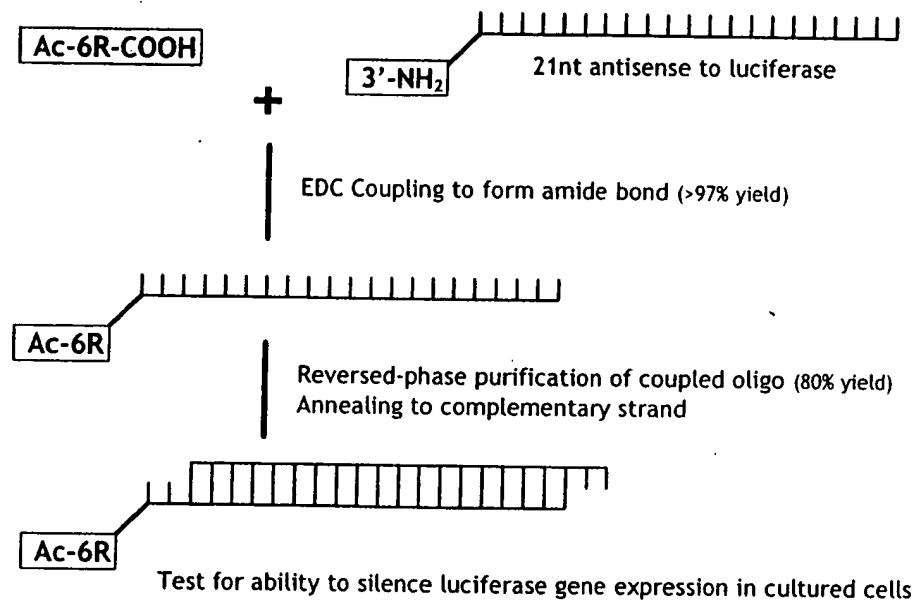


FIGURE 6

7

7

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1      2      3      4      5

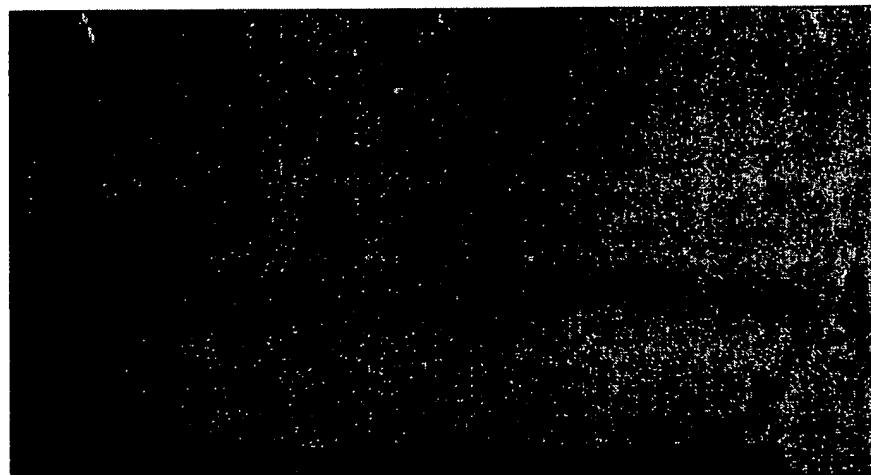
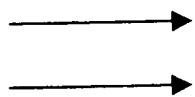


FIGURE 9

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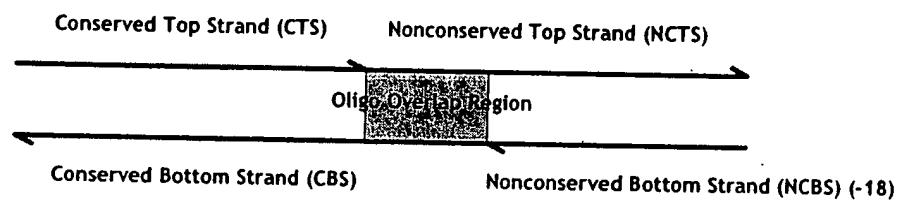


FIGURE 8A

↔

↔

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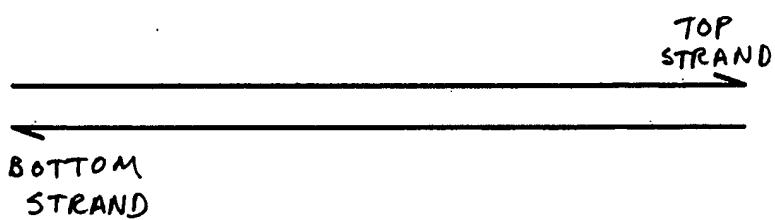


FIGURE 8B

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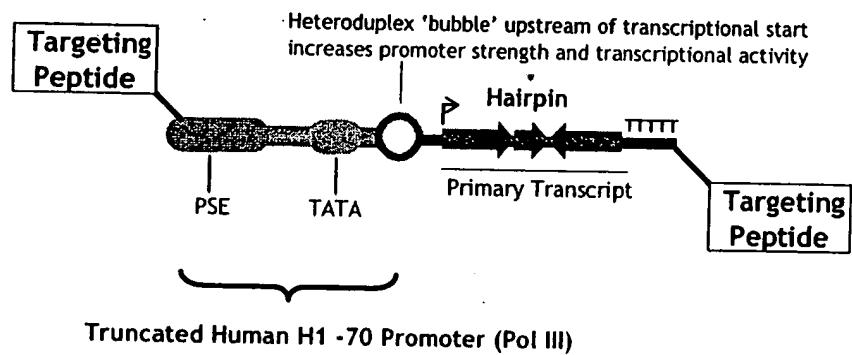


FIGURE 9

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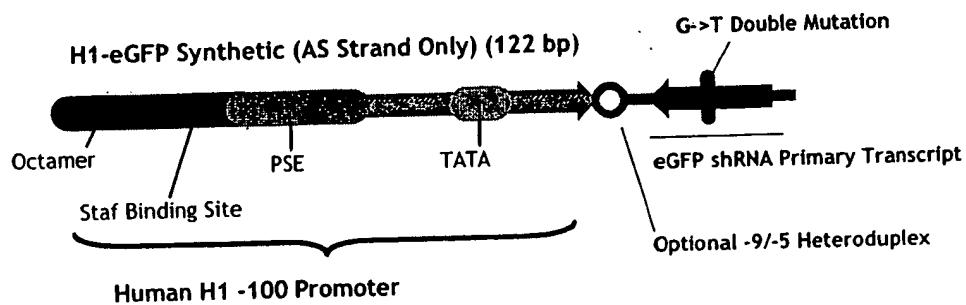


FIGURE 10

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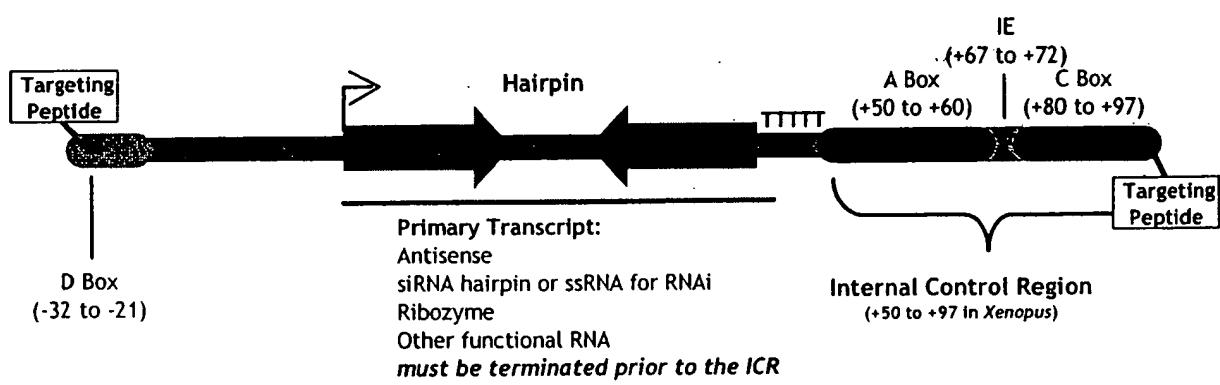


FIGURE 11

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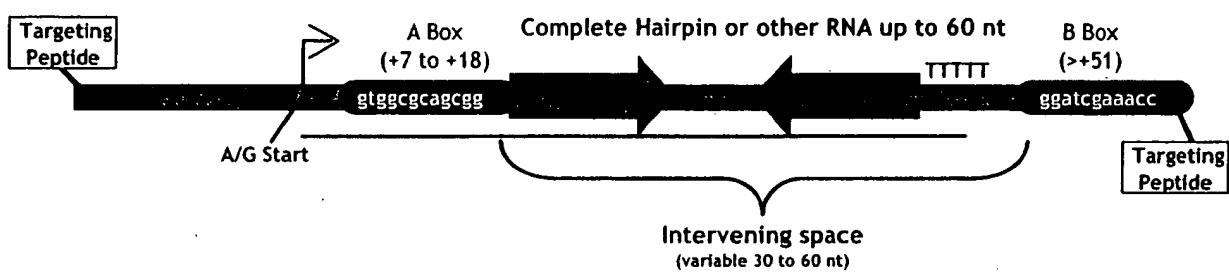


FIGURE 12A

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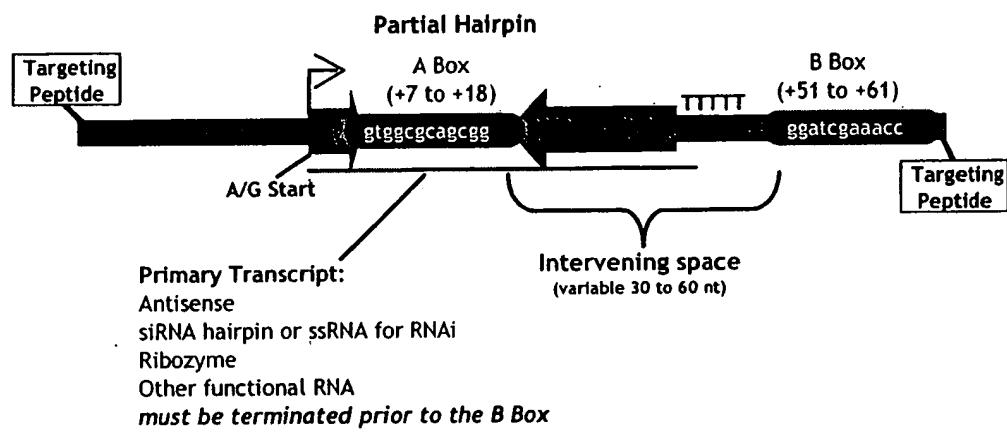
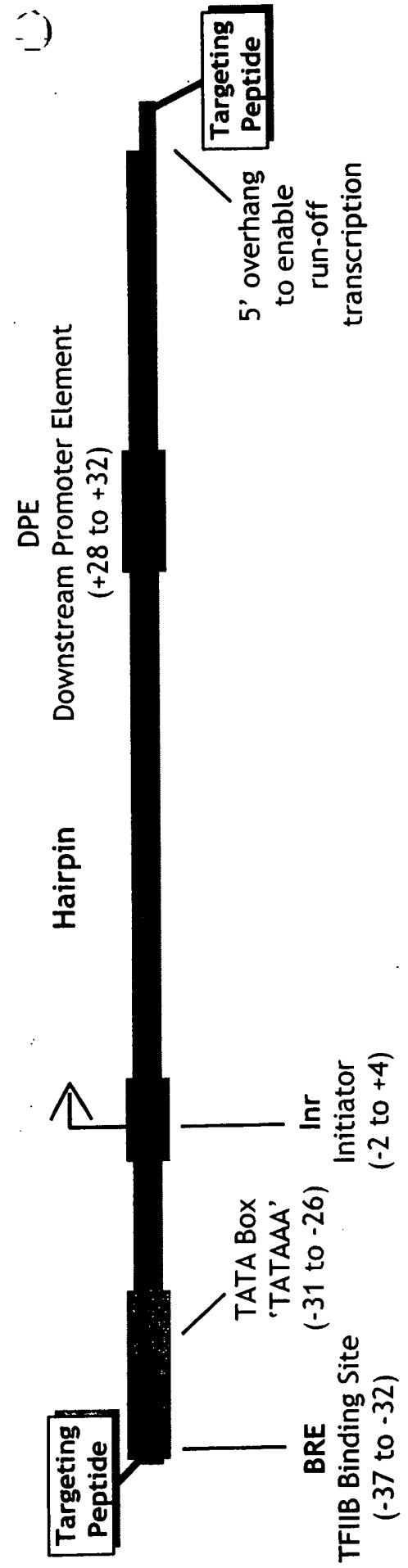


FIGURE 12B

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F16URE 13

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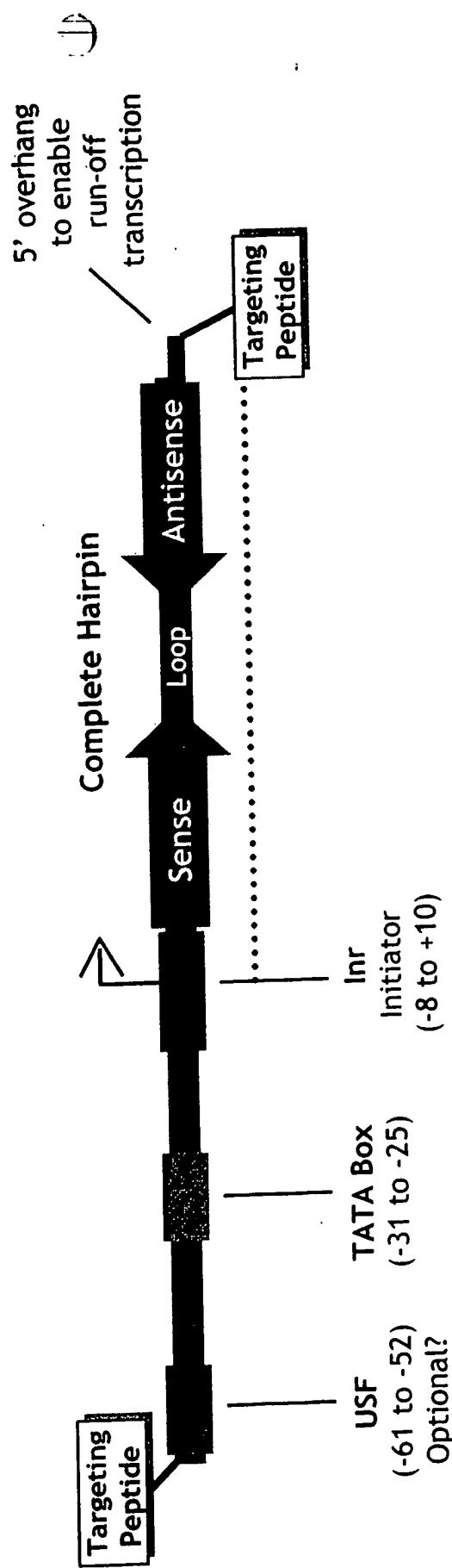


FIGURE 14A

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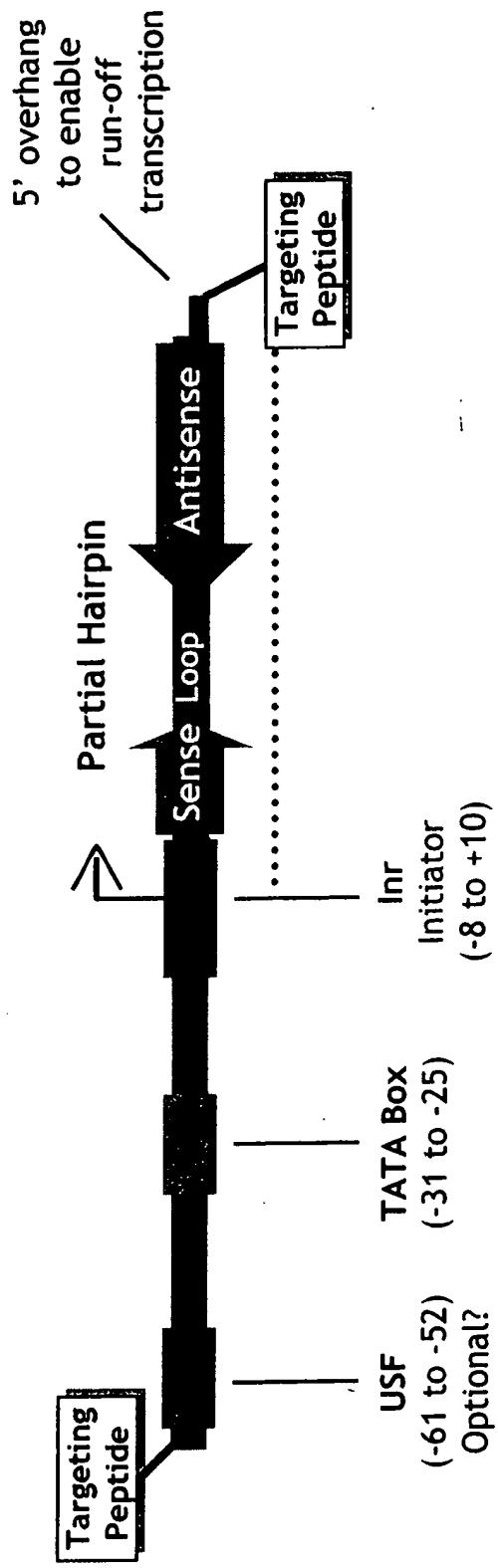
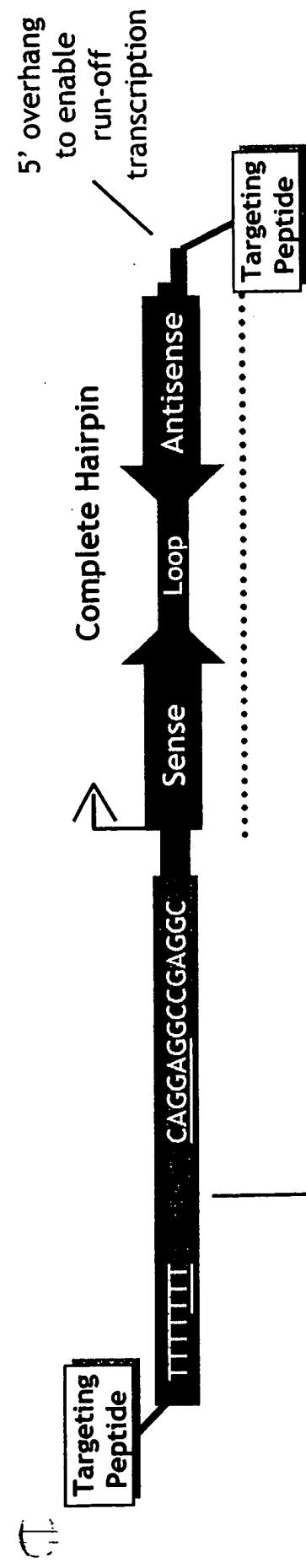


FIGURE 14B

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### TATA Box

(Approx -5, -25 and/or -40 bp from start of transcription)

Tst-1 Binding Site Underlined

FICURE 15A

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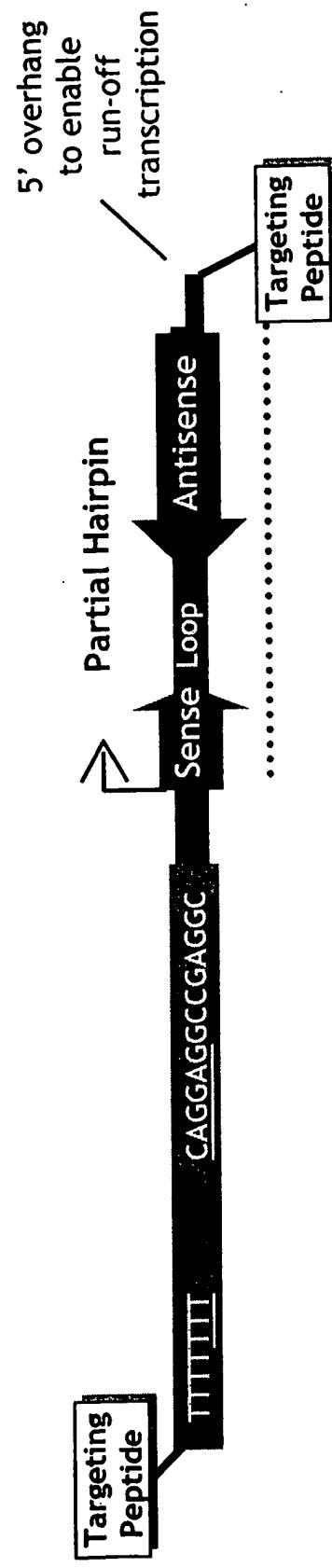


FIGURE 15 B

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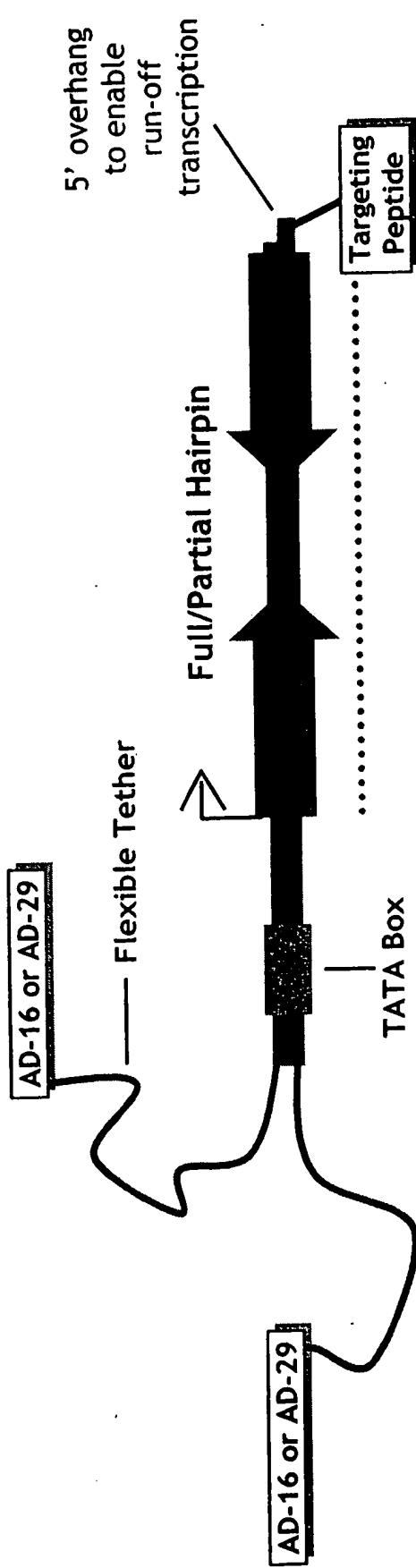


FIGURE 16

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### Human ERE2 U6 87U6 eGFP Linear

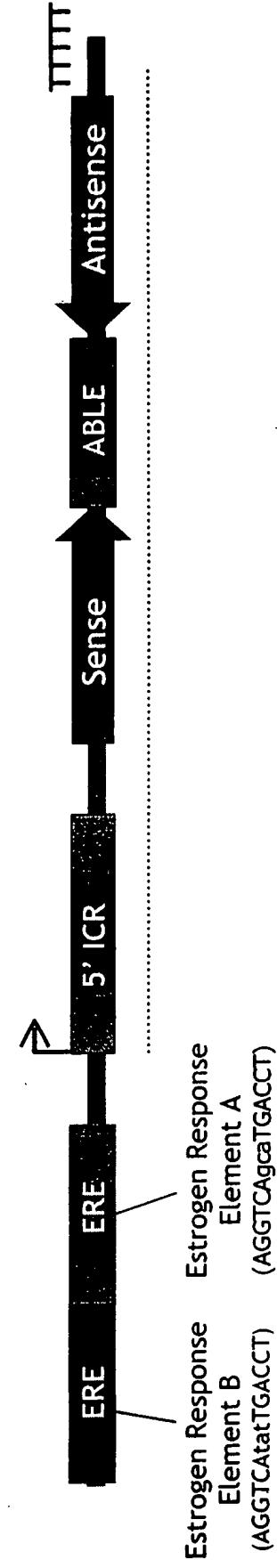
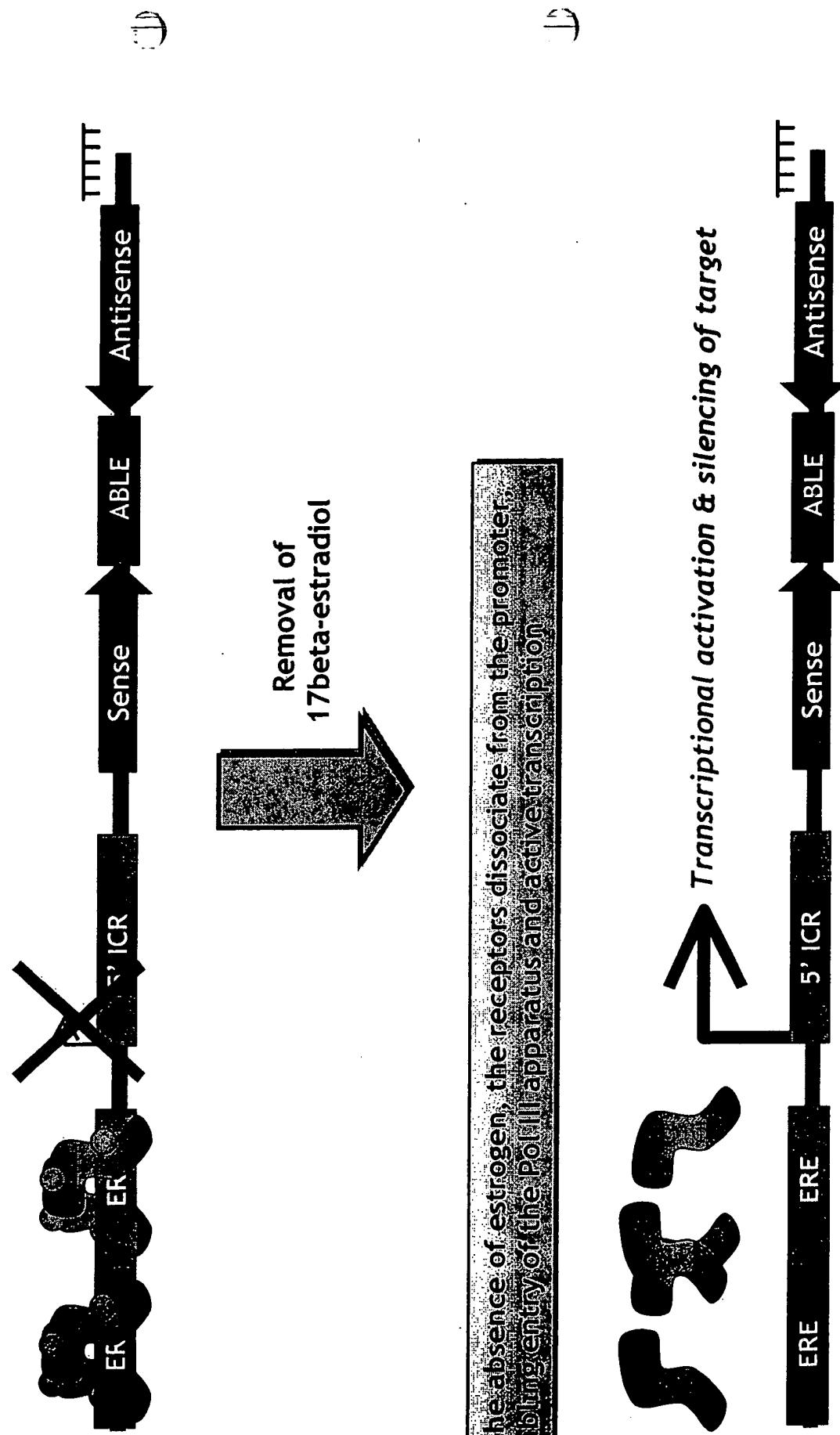


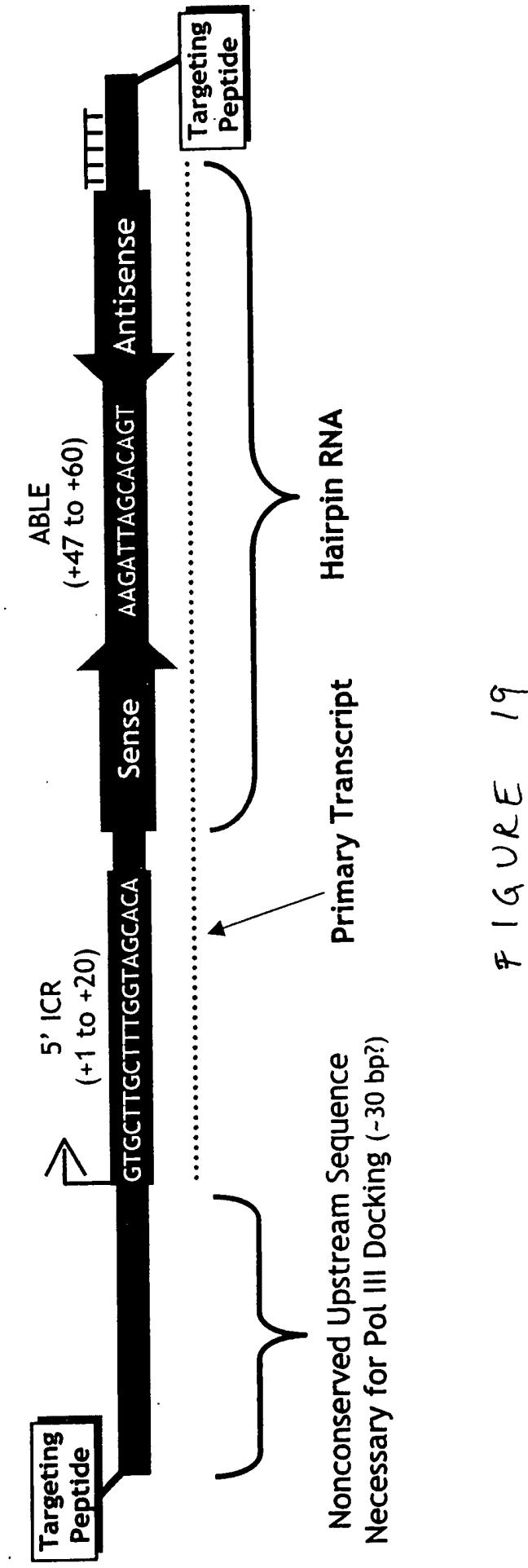
Figure 17

In the absence of 17beta-estradiol, estrogen receptors bind upstream & block Pol III assembly & transcription.



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## Based on the human U6 snRNA variant, 87U6



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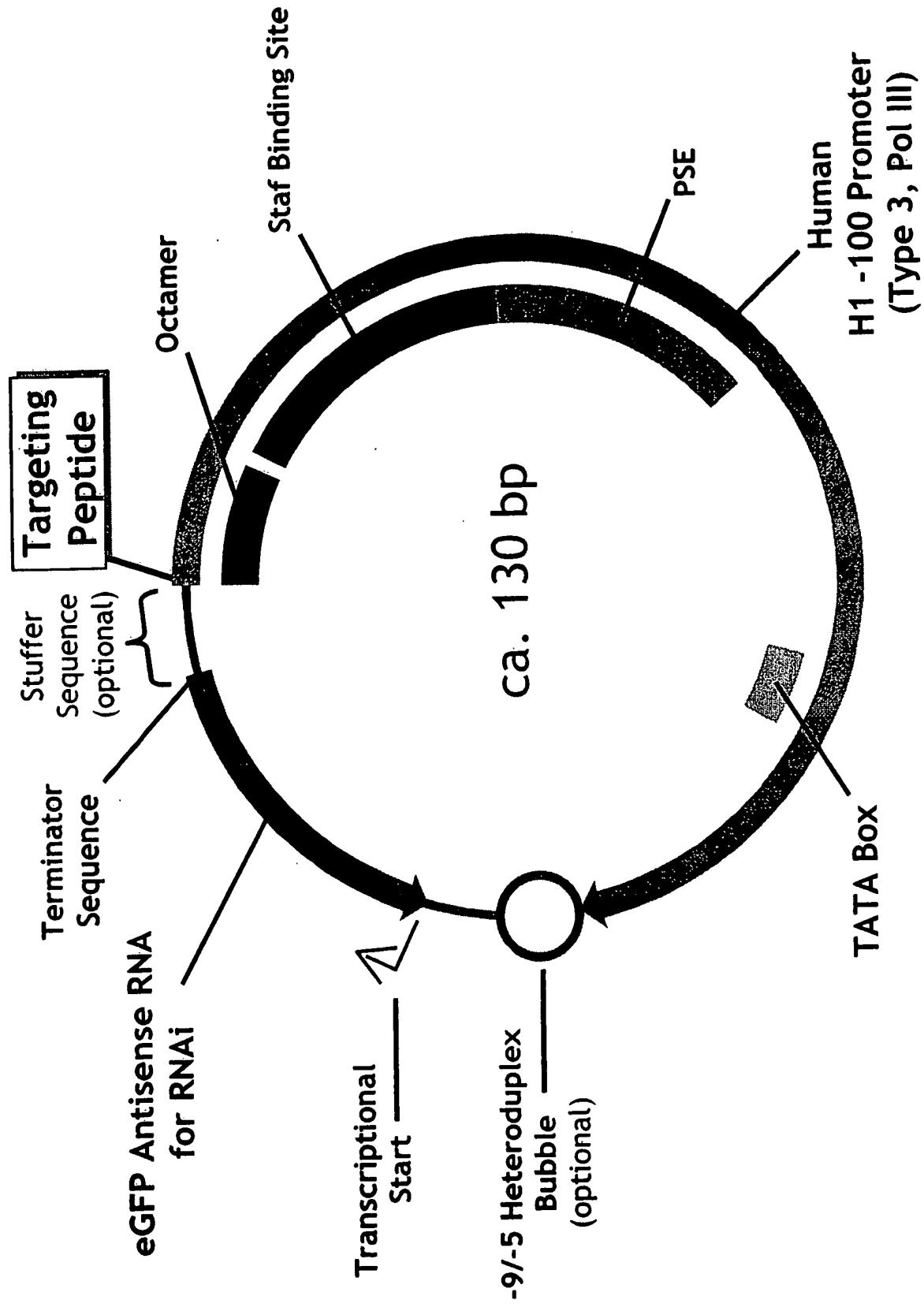


FigURE 20

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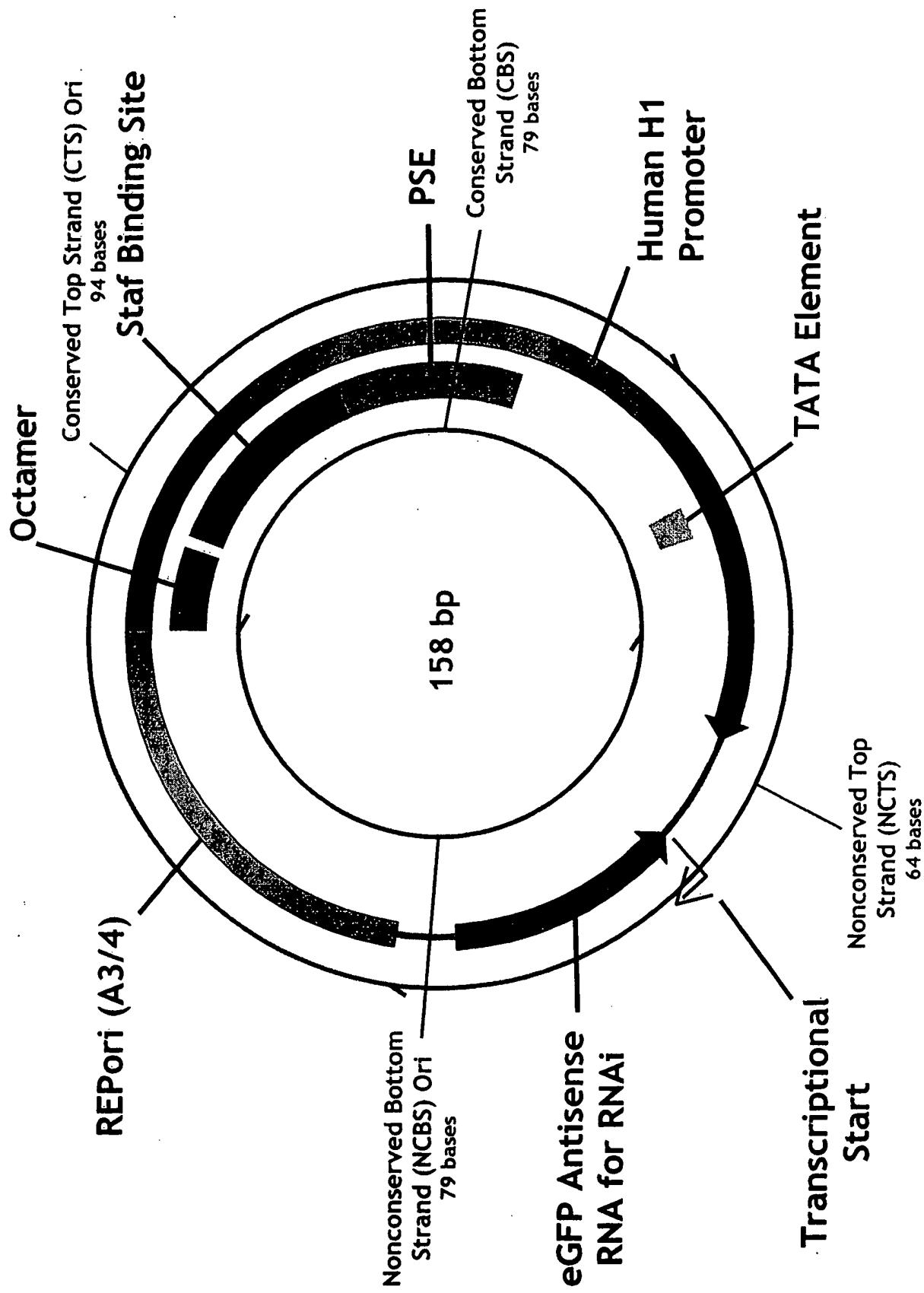


FIGURE 21

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## H1-eGFP Synthetic I REPori Micro-Circle Synthesis Strategy

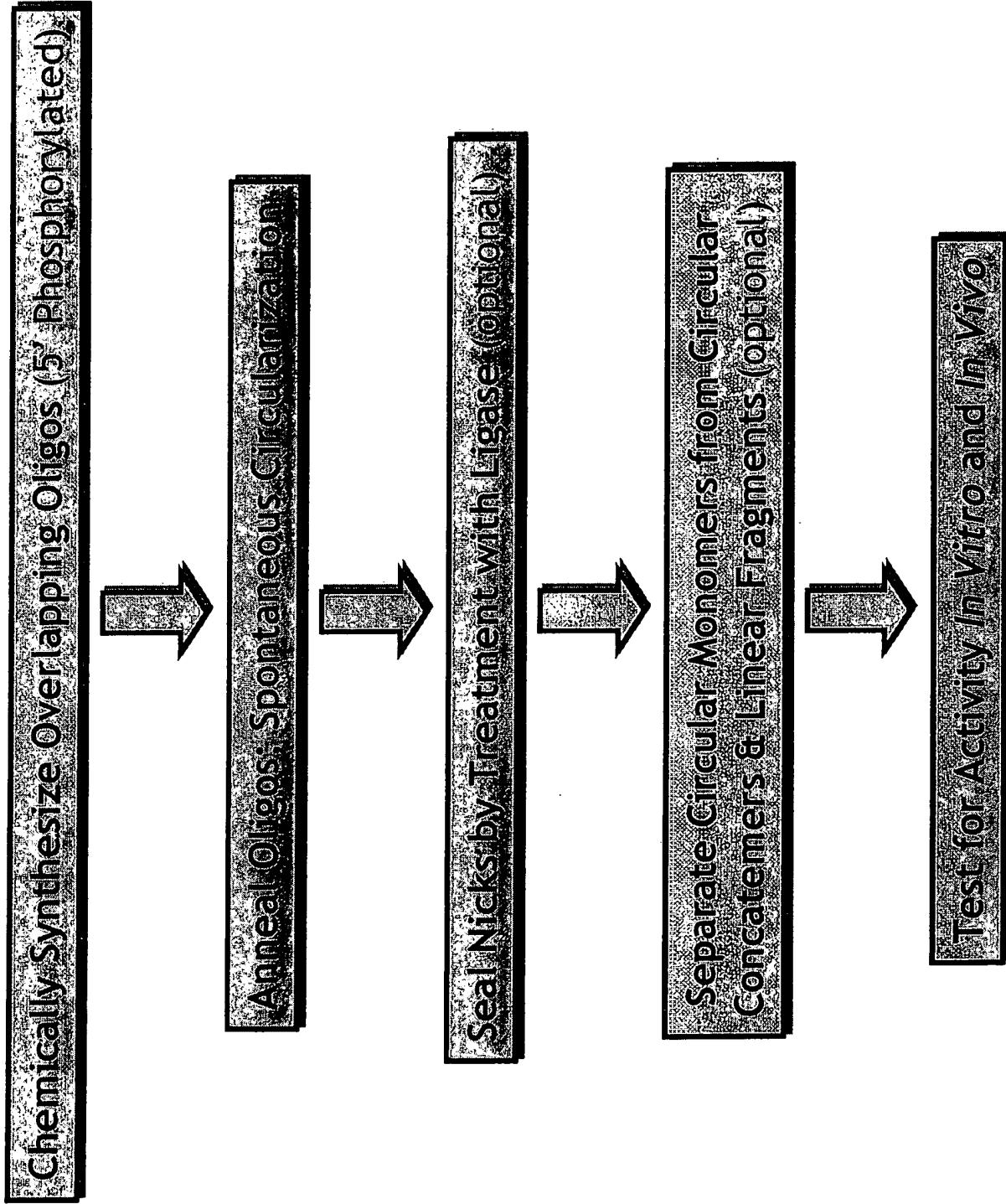


FIGURE 22

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PRACTICAL TRANSCRIPT

Sense Strand Beta-Catenin 1      AGAUUA  
**GUCUUGGUAGCACAAAGCAUUGCUGGUAGAGGCUGGGA**  
 |||?||||?|||  
 UUCGAUAAACAUUUUCGACCACCU G A C A C  
 Antisense Strand Beta-Catenin 1  
 N.B.: Presence of hairpin mismatches increases oligo synthesis yields and reduces aberrant cruciform DNA formation during hybridization. Changes made on the sense RNA strand do not adversely affect RNAi.

**N.B.:** Presence of hairpin mismatches increases oligo synthesis yields and reduces aberrant cruciform DNA formation during hybridization. Changes made on the sense RNA strand do not adversely affect RNAi.

Also, it has been shown that a 6-base 5' overhang on a silencing RNA hairpin did not block silencing activity (*Nature*, 2002;418:435). Thus, the primary RNA transcript shown above will likely serve as a substrate for RNase III.

## ABLE Box forms

### Loop of Hairpin

二

FIGURE 23 B

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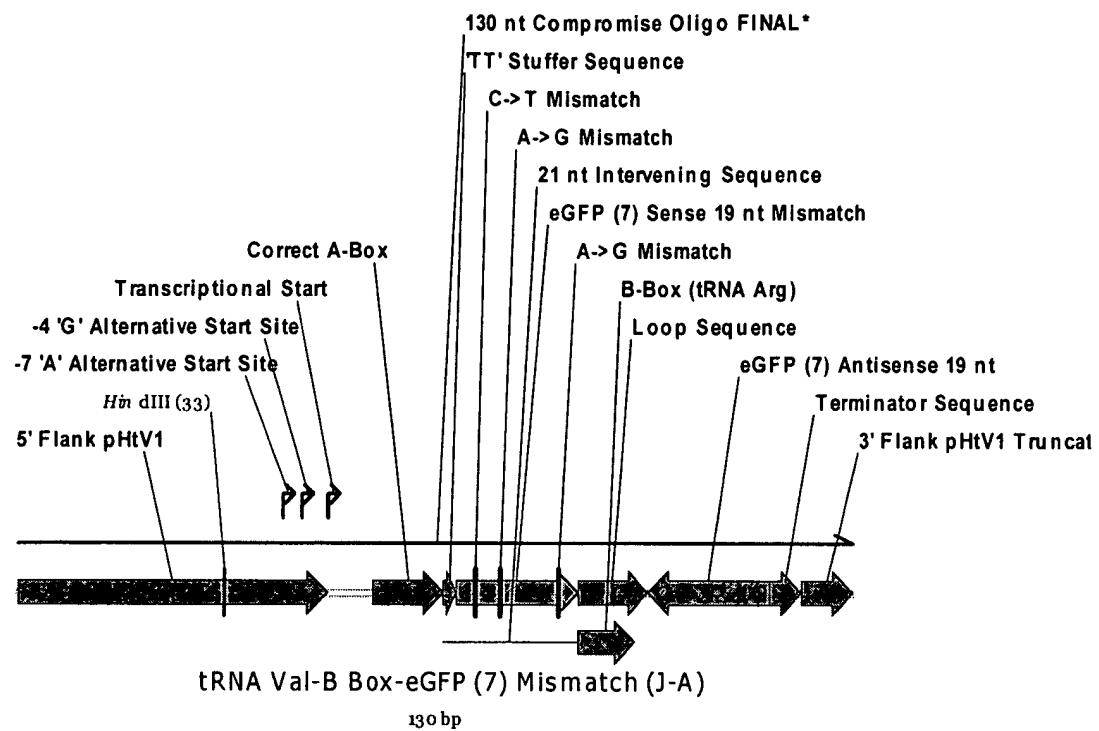
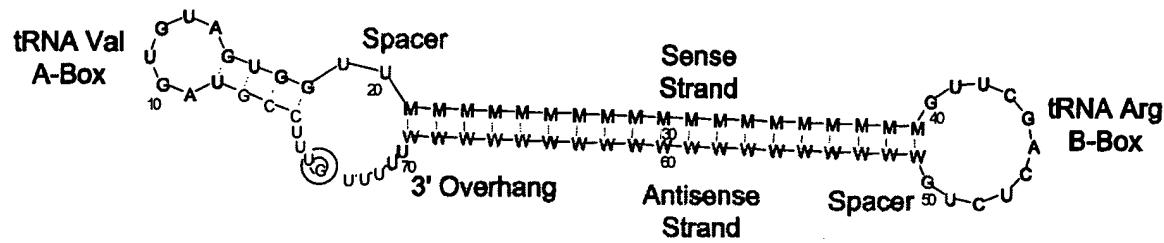
Mature transcript, following processing by RNase III  
(cleaves dsRNA into fragments with 2 base 3' overhangs)

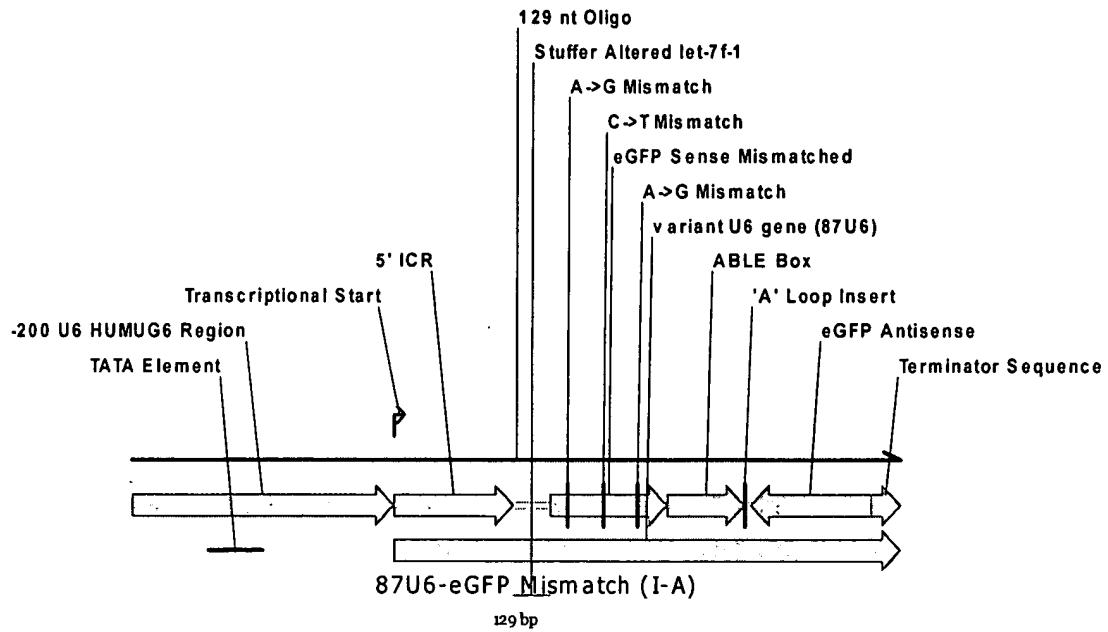
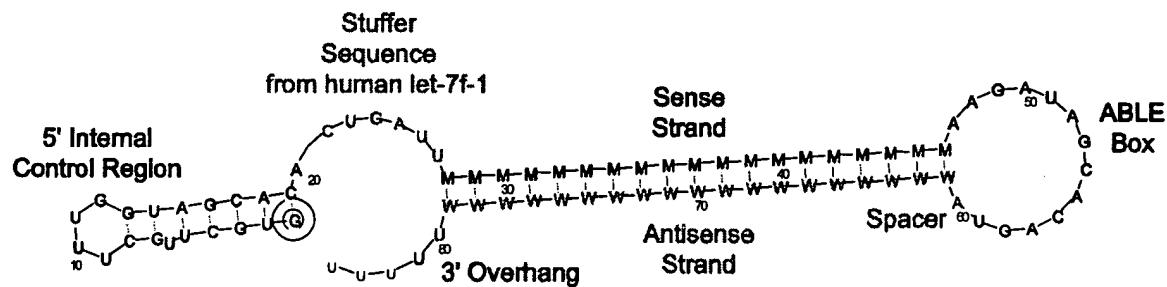
Sense Strand Beta-Catenin 1

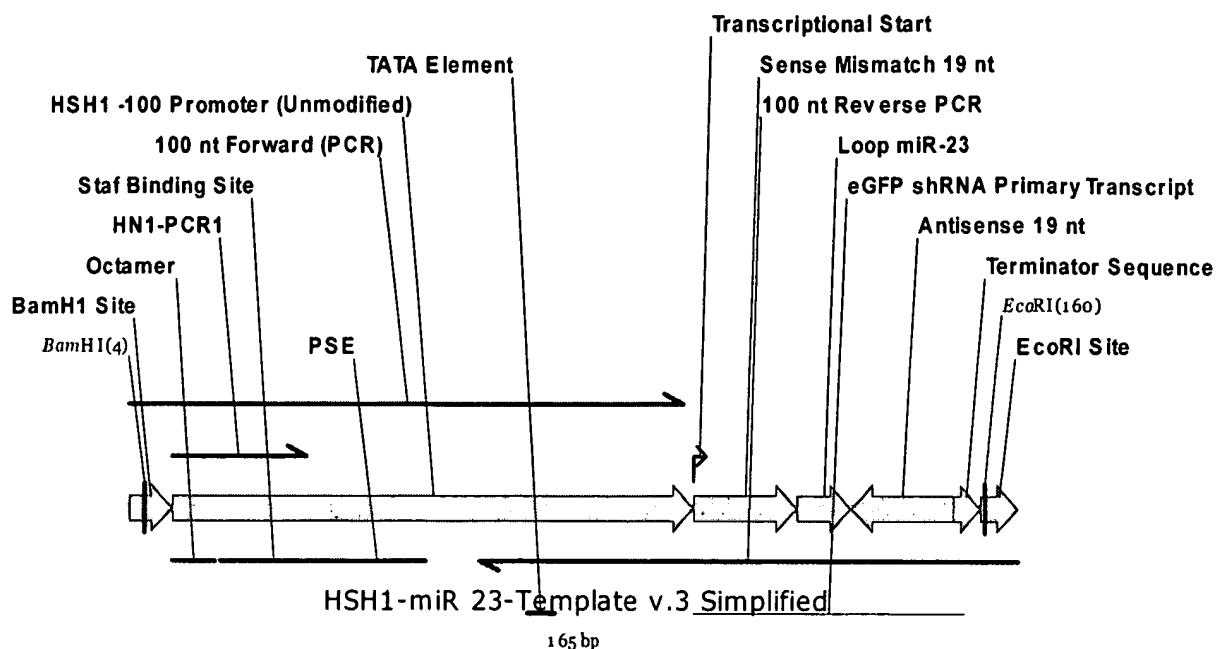
GCUGUUUGUAGAGGCUGGUGGAA  
|||?|||||||?|||||||  
UUCGAUAACAU**C**UUCGACCACC

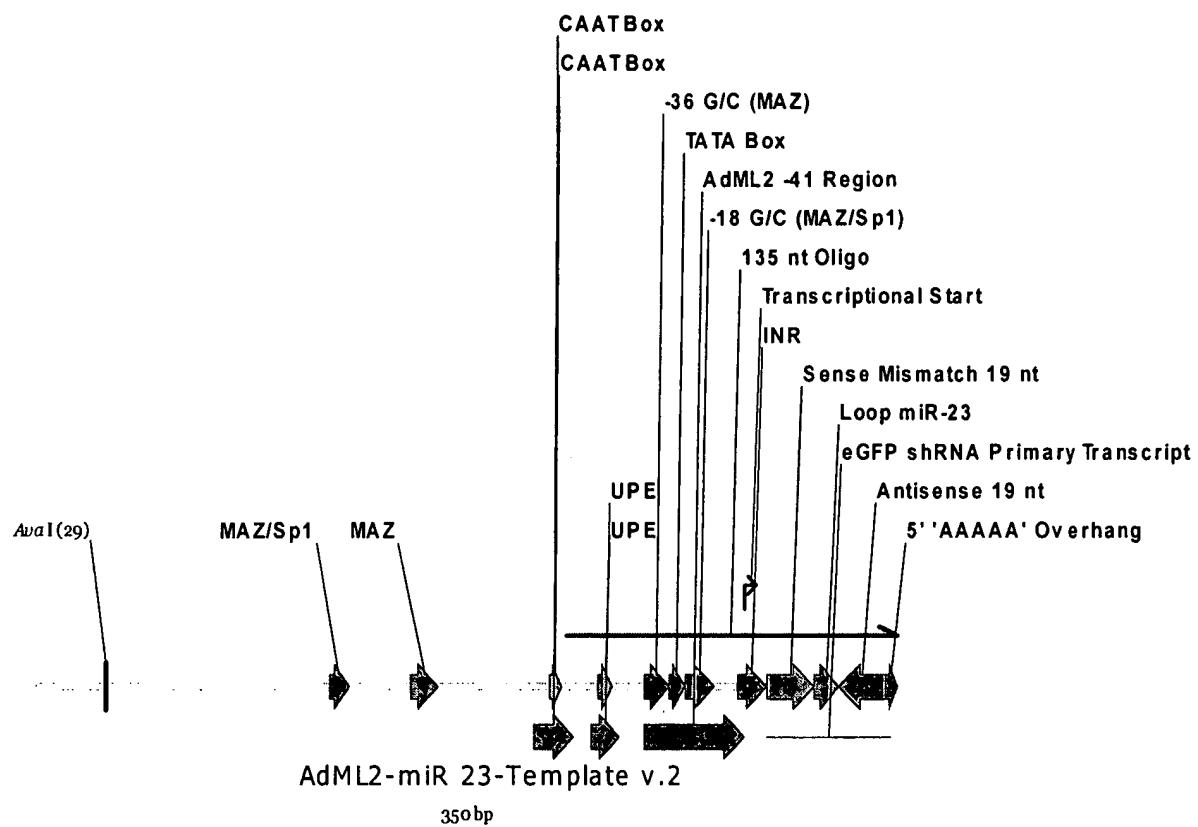
Antisense Strand Beta-Catenin 1

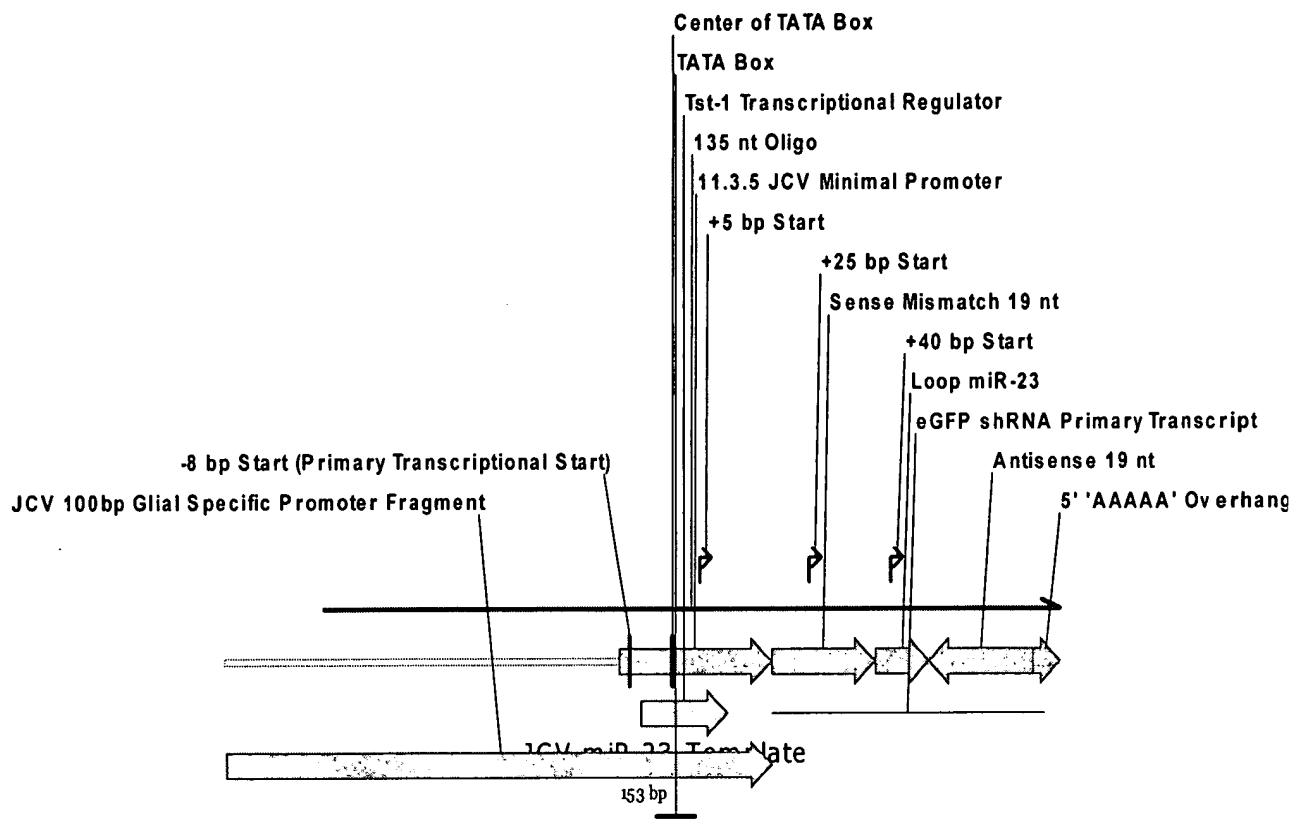
FIGURE 23 C

**Figure 24A****Figure 24B**

**Figure 25A****Figure 25B**

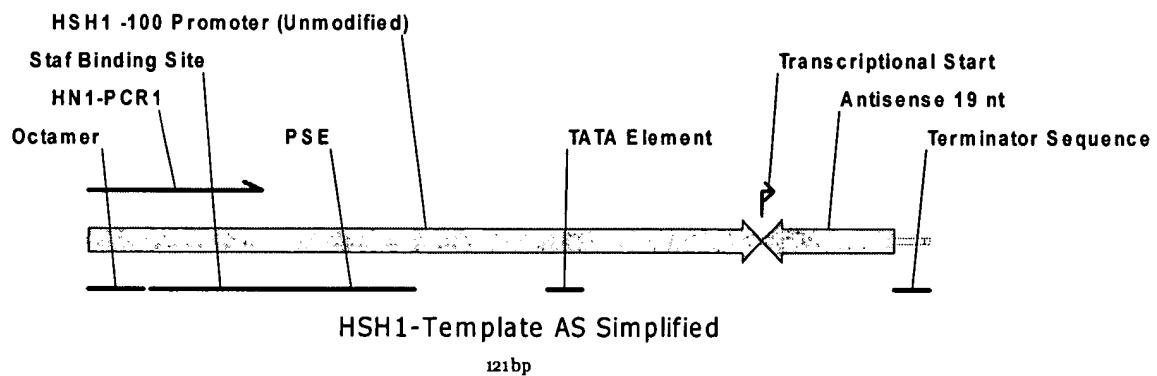
**Figure 26**

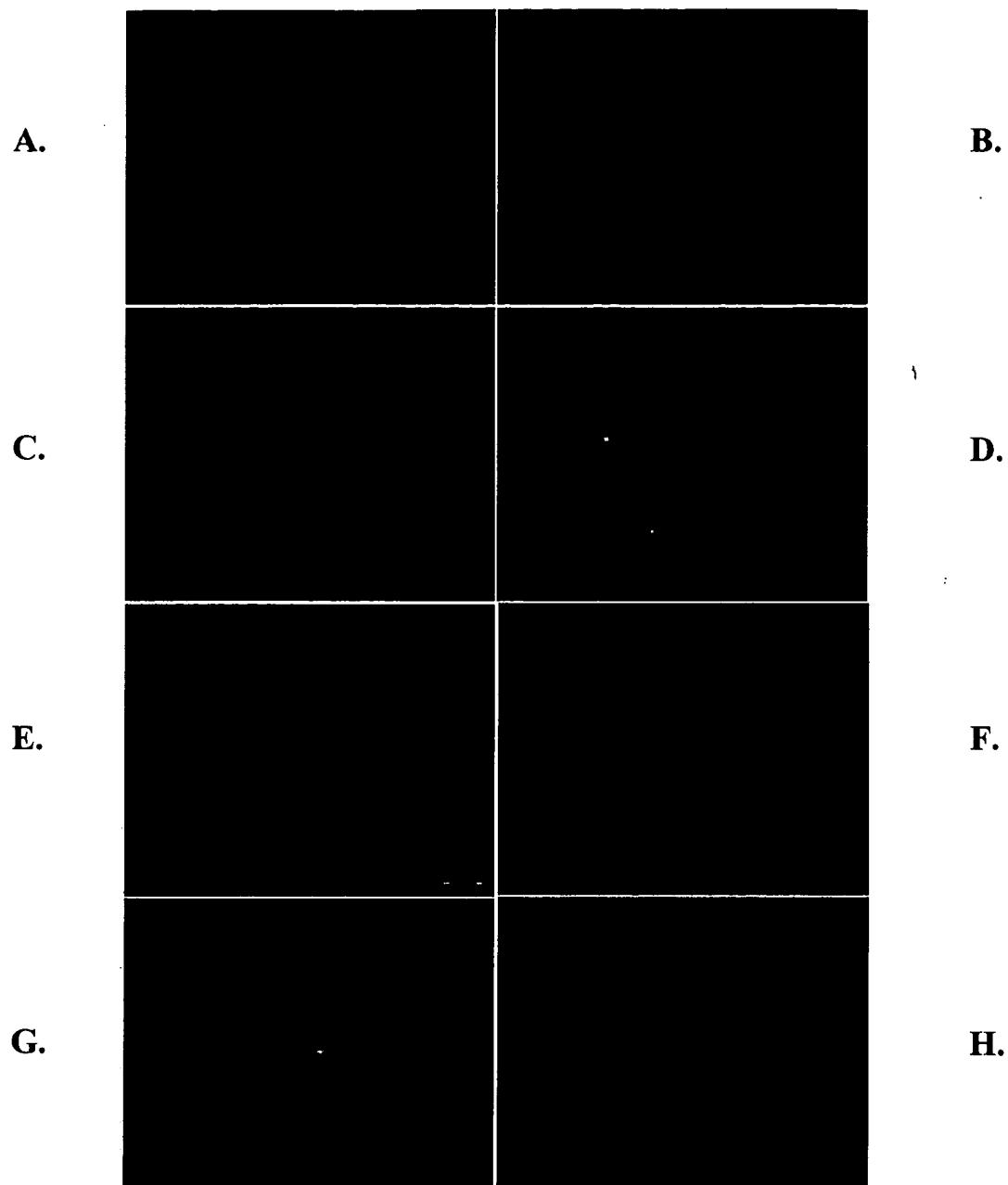
**Figure 27**

**Figure 28**

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Figure 29



**Figure 30**

**Figure 31**

